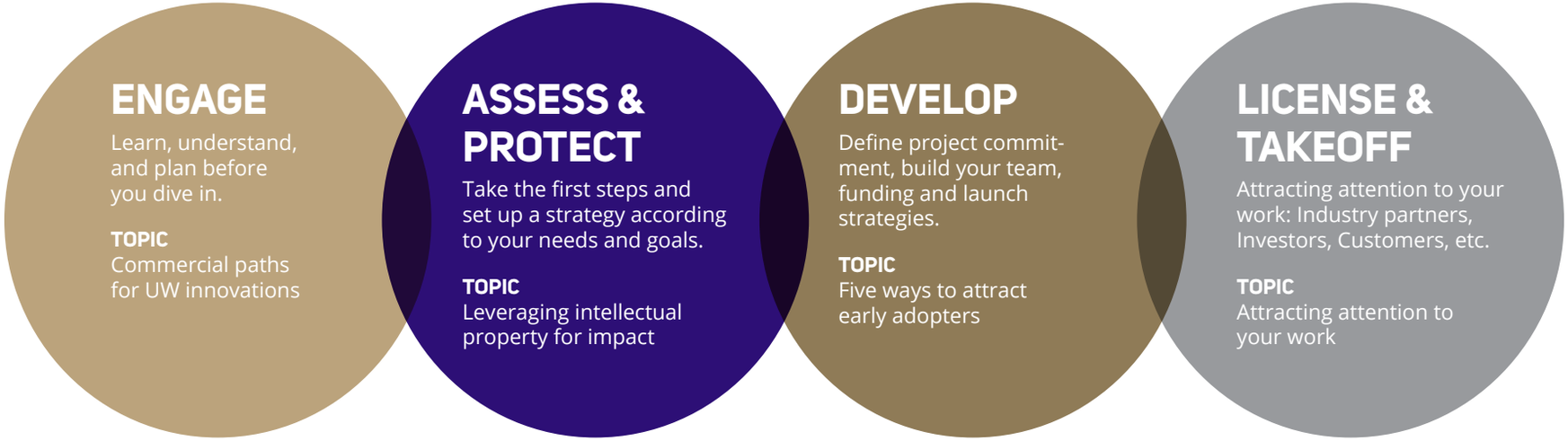
COMOTION

Your Innovation Partner

FUNDAMENTALS OF TECHNOLOGY COMMERCIALIZATION

COMMERCIALIZATION MANUAL

Successful commercialization involves a series of steps that we take together



UNIVERSITY *of* WASHINGTON

COMMERCIAL PATHS FOR UW INNOVATIONS

Learn, understand, and plan before you dive in.

WHY?	WHEN?	RESOURCES	LINKS
Understand	Anytime	Consultation	Request a consultation or submit an ROI: bit.ly/uwcomotion
Plan	Public disclosure	Training	Innovation Training: bit.ly/CoMotionTraining
Set yourself up for success	Industry interest	Record of Innovation (ROI)	Events page *(for more trainings and engagement opportunities, especially Fundamental Fridays)*: bit.ly/CoMotionEvents
	Not sure? Just ask!	Newsletter	Sign up for our newsletter: bit.ly/CoMotionNewsSignUp

COMMERCIAL PATHS FOR UW INNOVATIONS

POSSIBLE PATHS				
	UW "INTERNAL BUSINESS"	**LICENSING INNOVATION TO EXISTING COMPANY**	**STARTUP SPINOUT**	**OPEN DISTRIBUTION**
Main reasons for choosing each path	Fits within research activity of lab and benefits the research Reputation of UW would significantly benefit project	Often offers best pathway given licensee's expertise and market presence Product or service likely not competitive as a standalone business	Large market with significant opportunity to generate a return on investment Confidence in team capabilities No existing company ready to license	UW team may release software code, materials or unpatented inventions for free Potential to quickly impact the market
EACH OF THESE PATHS HAVE CONSEQUENCES YOU SHOULD BE PREPARED FOR:				
Personal & professional commitment level	High and continuous time commitment	High initially to develop the innovation and find the partner	Depends upon your role. Either high time commitment, or capacity to delegate to team if your role is destined to phase out. Be prepared for a steep, but fulfilling, climb up the learning curve.	Must commit time initially to achieve impact
Ability to achieve within current UW role	These projects can be time consuming and require a different type of management than is typical for faculty, i.e. ability to predict revenues and create a project that satisfies the needs of customers and stays within the resources it generates. They may require use of UW staff in your department.	Yes	Few faculty members or students can manage continued active involvement in a startup and keep their UW appointment. If you are a faculty member, you may need to take a leave or partial leave if you have a key role in the startup. Your department chair and dean must agree to the leave request. We frequently see grad students and post-docs taking on key startup roles as opposed to faculty members.	Yes
Degree of control	Higher than for the others	If you launch this technology out into the world, you should be prepared to gradually lose control over the project, as it starts taking a life of its own independent from your research.		

POSSIBLE PATHS				
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Relative risk for success	Lower risk	Moderate risk as licensee is an established company with proven capabilities.	High risk as all aspects of a successful business need to be established.	Lower risk
Key success factors	**To be successful, any project will require...** **S**upport from you **U**nmet need (i.e. addresses a real customer problem) **C**ustomer driven solution **C**ash (to achieve key milestones) **E**xpert advice **S**olid team **S**ignificant advantage (i.e. competitive advantage of some kind/IP/freedom to operate) **And the following are key elements to the success of each type of venture:**			
	Having the resources to build and sustain the business Ability to evaluate and sustain staffing needs Having a network of customers (often peers) prior to launch	Willingness to carry the project until it becomes attractive to industry Business connections and acumen	Leadership Storytelling Business acumen For those whose role is destined to phase out, capacity to give up control over the destiny of the business	Freedom to operate Agreement on pathway within the team

LEVERAGING INTELLECTUAL PROPERTY FOR IMPACT

ASSESS & PROTECT

Set up an intellectual property strategy that matches your needs and goals

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Set yourself up for success		Record of Innovation (ROI)	Events page *(for more trainings and engagement opportunities, especially Fundamental Fridays)*: bit.ly/CoMotionEvents
	Not sure? Ask before you act!	Newsletter	Sign up for our newsletter: bit.ly/CoMotionNewsSignUp

bit.ly/CoMotionTraining

LEVERAGING INTELLECTUAL PROPERTY FOR IMPACT

THE TWO MOST RELEVANT TYPES OF INTELLECTUAL PROPERTY		
TYPE OF IP	**COPYRIGHT**	**PATENT**
What is it?	A legal right granted to creators of original works of authorship, which include literary (including software), dramatic, musical, artistic, and certain other intellectual works, whether published or unpublished.	A legal right granted to someone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement of those.
What does it give me?	The right to control how the work gets introduced into the world.	The right to exclude people from practicing (e.g. making invention, selling it, etc.) the patent.
What is **NOT** part of the protection?	Copyright does **NOT** protect ideas, only their expression. You do not get the right to control further distribution of physical copies of the work once it has been sold. Exception**:** control can be kept on online content by licensing it (as opposed to selling it or publishing it without restriction).	You do **NOT** get the right to practice your invention. Practicing the patent may infringe a prior existing patent i.e. a patent may be granted on a device that includes a previously made device and adds to it (e.g. a better mousetrap might cover a previously patented one with an added feature that makes it better). In those cases, you may need a license for that prior patent to become able to practice yours.
How to get protection?	**Automatic when all criteria are met:** • **the work is original** i.e. it comes from you and has a minimal level of creativity to it, as opposed to pure utility such as a recipe, • **it is expressed** in some form or another, as opposed to remaining a mere idea, and • **it is recorded/saved** on some medium.	**Need to apply for it and successfully convince the government that your invention meets the requirements for protection below:** • **The subject matter is patentable** Attention! Grey areas to keep in mind notably in the biotech and software spaces. Come discuss your innovation with us if you have any questions. • **The invention is new** Attention! Some things that you would not think about may be considered disclosures by the law (e.g. an abstract of an article, a thesis defense, showing a prototype, etc.). If unsure, please ask us first. • **Useful**, and **Non-obvious** *These are terms of art with a specific meaning*
Who "owns" the IP?	**It depends on the conditions of creation:** • Falls under an employment agreement v. personal project, • Conditions attached to any resources used, • Conditions attached to any funding used (e.g. compensation given by UW or federal grant money v. unpaid internship), and • who created (you alone or with other people) Revenues generated are shared between creator, department/school, and UW central.	

THE TWO MOST RELEVANT TYPES OF INTELLECTUAL PROPERTY		
TYPE OF IP	**COPYRIGHT**	**PATENT**
When to seek protection?	N/A, except that registration is required before suing for infringement.	**When there is a reason for it, i.e. when there is commercialization intent, and:** • A valid product with a risk of reverse engineering, • A need to create a deterrent for infringement (unless you would be enforcing against doctors), • The capacity to tell if the patent is infringed.
Key tips for success	**Authorship/ownership:** Assume the author is the person who creates the work, so make sure you have a clear document in place before you work with students or third parties to create things. **To keep in mind when creating copyrighted content:** Some tools used in the creation process (e.g. MATLAB or other software when under educational use license) have specific license terms attached to them and might restrain your possible uses of your own creation. Make sure you obtain a license to tools that allows for the use you want before you create. **Clearing other people's rights so you can use their content:** • Keep records regarding third party content: where you obtained the content, from whom, and keep permissions obtained. Note: Citing someone is NOT sufficient to give permission to use. • When using other people's copyrighted content, clear rights for the widest possible use you may have and clear them early. • Much of what is on the internet is copyrighted and cannot be freely used without permission. What may be tolerated for in-class use or academic presentations may not be ok for other uses. Check and clear rights before you use.	**Responsibility to convince the government:** Patents are an exception to the norm (the norm is freedom to use by anyone), and because of it the onus is on the applicant to comply with strict regulations: • Come to us before you publish or talk to anyone about your invention. You have only one year from the day you "disclose" your invention to file a patent application, and if you disclose prior to filing a provisional application you forfeit all possible foreign patent rights. UW CoMotion staff needs 3 weeks minimum to file a provisional patent application from a Record of Invention you submit. • Diligently meet deadlines • Fully disclose all elements of the invention and surrounding the creation to the team filing the patent application. CoMotion has a team of experts to guide you through this; work with them! **Value of a patent/coverage:** A patent is an agreement with the government i.e. you disclose what you invented in exchange for 20 years of exclusiveness: • If value is in secrecy, do not file a patent application. • If you have no commercial strategy attached to the patent, it may not be worth the expense and time commitment. • A provisional patent and a patent cover only what you file. If you continue to invent after you file, all that work is not covered by your application. You may be able to protect it via a subsequent patent application. **Commitment:** When applying for a patent, you are committing to staying involved for many years to come.

THE TWO MOST RELEVANT TYPES OF INTELLECTUAL PROPERTY		
TYPE OF IP	**COPYRIGHT**	**PATENT**
Additional resources available	**Open source licensing page (guide on DIY open-source licensing):** comotion.uw.edu/what-we-do/intellectual-property-licensing/open-source/ **For more a more detailed discussion of copyright questions relevant to faculty:** www.aaup.org/issues/copyright-distance-education-intellectual-property/resources-copyright-distance-education-and/intellectual-property-issues-faculty (2004)	**Guide on creating a lab notebook to set the stage for a successful patent application process:** youtube.com/watch?feature=player_embedded&v=MgVbXMD-e-w **Guide on navigating transferring materials (e.g. biological materials) into and out of UW:** comotion.uw.edu/what-we-do/ip-advising-protection-and-licensing/material-transfer-agreements-mta/
	Page containing answers to general questions about technology transfer comotion.uw.edu/what-we-do/faqs/#section-1-0	

FIVE WAYS TO ATTRACT EARLY ADOPTERS

DEVELOP

Define project commitment, build your team, funding and launch strategies.

ENGAGE WITH COMOTION

Request a consultation or submit an ROI: bit.ly/uwcomotion

Sign up for our newsletter: bit.ly/CoMotionNewsSignUp

bit.ly/CoMotionTraining

FELLOWSHIPS TO EXPLORE OPTIONS

WRF postdoctoral fellowships: wrfseattle.org/details-eligibility.php

CoMotion Commercialization Fellows Program: comotion.uw.edu/what-we-do/funding-resources/commercialization-fellows-program/

Mistletoe Foundation Research Fellowship: mistletoefound.org/mistletoe-research-fellowship"

BUILD SKILLS

Innovation Training: bit.ly/CoMotionTraining

Apply for I-Corps: bit.ly/uw-icorps

FUND YOUR PROJECT

Innovation Gap Fund: bit.ly/CoMotionInnovGapFund

Washington Research Foundation: bit.ly/WRFgrant

FIVE WAYS TO ATTRACT EARLY ADOPTERS

"It takes 10 years to become an overnight success."

–ERIK VAN EATON, UW MEDICINE RESEARCHER, SURGEON

Many commercialization projects take time and commitment, but some more than others. There are four paths to commercialization, and while open distribution and licensing to an existing company may take less time and effort than building an internal business at UW or licensing the innovation to a startup, all will take time and commitment from you. In other words, before committing to bringing an innovation to impact, you need to have the passion and drive to push the project forward.

What is your idea and why do you think it is important to bring it to the world?

Who on your team is committed to spending time working on this?

How much time do you and your current team think you can spend per week on this project?

You: **Your team:**

A high performing team displays: -

- A meaningful **common purpose** that the team has helped shape
- Specific **performance goals** that flow from the common purpose
- A mix of **complementary skills,**
- A **strong commitment** to how the work gets done,
- **Mutual accountability**

DEVELOP

What is your team like? Are you missing any skills?

FIVE WAYS TO ATTRACT EARLY ADOPTERS

Before you spinout of the University you need to know your project can take off and stay airborne before the runway runs out. Complete the assessment below to test the maturity of a project.

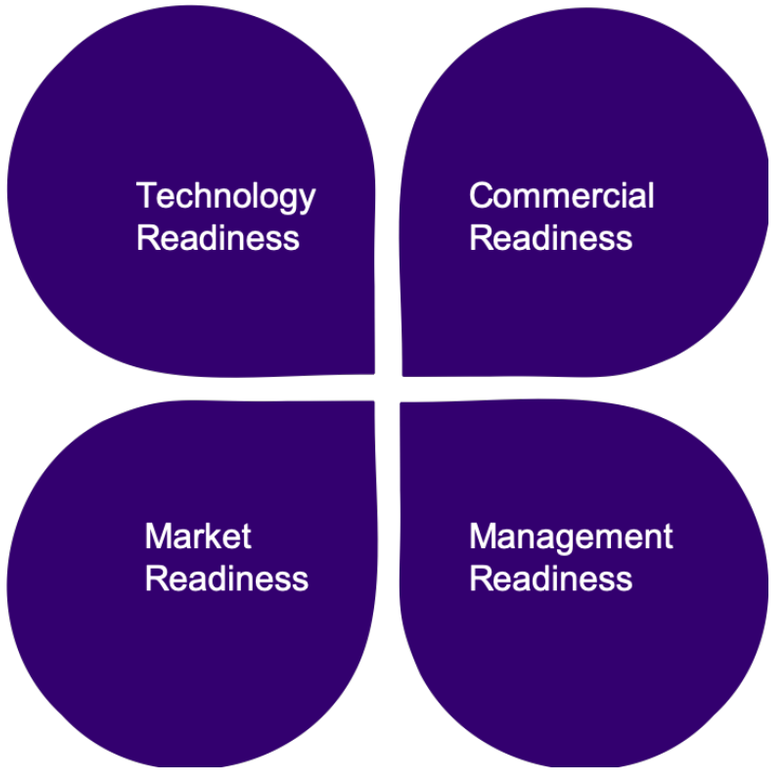
Explanation of how to score

For each of the criteria conditions, enter a score for "Extent to which condition is met" using 1 for "not met", 2 for "partially met" and 3 for "fully met". For "Level of confidence" score in the range of 1 - 3 where 1 is for low confidence and 3 is for high confidence. Multiply the two scores and enter this number as the Weighted Score in the 3rd column. Finally, add the weighted scores for a total score.

	Extent to Which Condition is Met	X	Level of Confidence	=	Weighted Score
Market Readiness					
The technology offers significant identifiable and quantifiable benefits	_____		_____		_____
The product/process has distinct advantages over competing products	_____		_____		_____
The technology has future uses	_____		_____		_____
There is a definable market product	_____		_____		_____
A defined market is accessible	_____		_____		_____
The market is a large one	_____		_____		_____
The market is a growing one	_____		_____		_____
The technology has immediate market uses	_____		_____		_____
The technology will be first-to-market	_____		_____		_____
Manufacturing is determined to be feasible	_____		_____		_____
Market Readiness maximum score: 90				**Subtotal**	_____
Technology Readiness					
The technology is a new, non-obvious invention	_____		_____		_____
The patent and literature search are complete and clear	_____		_____		_____
There are no other dominant patents	_____		_____		_____
The technology is state-of-the-art or major breakthrough	_____		_____		_____
The technology is a core or platform technology	_____		_____		_____
No pending publications *(Canada only)*	_____		_____		_____
Technology Readiness Maximum score: 45 or 54				**Subtotal**	_____

	Extent to Which Condition is Met	X	Level of Confidence	=	Weighted Score
Commercial Readiness					
Prospective licensees are identified	_____		_____		_____
Inventor has industry contacts	_____		_____		_____
Licensee financial support is available for further development/patenting	_____		_____		_____
There is access to venture capital	_____		_____		_____
A positive return on investment is expected	_____		_____		_____
Royalty/licensing income expected to provide positive net present value	_____		_____		_____
Low marketing costs *(Canada only)*	_____		_____		_____
Government support available for additional development *(Universities only)*	_____		_____		_____
Commercial Readiness maximum score: 54 or 63 or 71				**Subtotal**	_____
Management Readiness					
Inventor will champion as a team player	_____		_____		_____
The inventor has realistic expectations for success	_____		_____		_____
The inventor is recognized and established in the field	_____		_____		_____
Commercialization skill are available	_____		_____		_____
Management capabilities are available	_____		_____		_____
Inventor holds patent *(Government labs only)*	_____		_____		_____
Management Readiness Maximum score: 45 or 54				**Subtotal**	_____
				TOTAL SCORE	_____

At each stage, the success of your commercialization project will depend on your capacity to advance all aspects of your startup in parallel. Where are you currently in each aspect of your project? Is there any aspect you need to focus on?



ATTRACTING ATTENTION TO YOUR WORK

LICENSE & TAKEOFF

Attracting attention to your work: Industry partners, Investors, Customers, etc.

April 8, 2020

3-4:30PM AT FLUKE HALL, 3RD FLOOR IDEA LAB
OR LIVE STREAM AT BELOW

bit.ly/CoMotionLive

COMOTION

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bit.ly/CoMotionTraining // CoMtrain@uw.edu